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BUSINESS

Big Fracking Profits at \$50 a Barrel? Don't Bet on It

Claims of low 'break-even' prices for shale drilling hardly square with frackers' bottom lines



A shale drilling operation in the Bakken Formation in North Dakota. PHOTO: DANIEL ACKER/BLOOMBERG NEWS

By Bradley Olson and Rebecca Elliott

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The rapid decline of U.S. oil prices will test the claim of fracking companies that they can now prosper at \$50 a barrel or less, a price level they have found challenging in the past.

For years, the companies behind the U.S. oil and gas boom, including Noble Energy Inc. [NBL -1.50% ▼](#) and Whiting Petroleum Corp. [WLL -1.96% ▼](#), have promised shareholders that they have thousands of prospective wells that they can drill profitably even at \$40 a barrel. Some have even said they can generate returns on investment of 30%.

But most shale drillers haven't made much, if any, money at those prices. From 2012 to 2017, the 30 biggest shale producers lost more than \$50 billion. Last year, when oil prices averaged about \$50 a barrel, the group as a whole was barely in the black, with profits of about \$1.7 billion, or roughly 1.3% of revenue, according to FactSet.

U.S. oil prices traded below \$50 last week and closed Monday at \$52.95.

The disconnect between the figures cited by companies and their corporate returns lies in the widespread use of a metric called a break-even, often defined as the selling price frackers say they need to generate a small profit on individual wells or projects. While the figure can be quite low for some companies in certain hot spots, it can be a misleading measure of their overall profitability in periods of lower prices.

For one, break-evens generally exclude such key costs as land, overhead and even at times transportation. Companies also frequently tout the low break-even price point of a portion of their holdings, without citing the higher price for crude needed to profitably exploit the rest, or adjusting for the inflated cost for drilling contractors and other services that come with rising oil prices.

Estimates by consulting firm R.S. Energy Group peg break-evens excluding land costs and overhead at about \$37 for the Permian Basin of West Texas and New Mexico, \$42 for the Eagle Ford in South Texas and \$47 for the Bakken in North Dakota.

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But companies require much higher oil prices in order to come out ahead if more of those necessary expenses are taken into account, the consulting firm's data show. All-inclusive break-evens are about \$51 in the Permian, \$57 in the Eagle Ford and \$64 in the Bakken, according to R.S. Energy.

Chris Duncan, an energy analyst at Brandes Investment Partners who helps manage \$28 billion in diversified assets, said he usually ignores companies' claims about the price at which their wells break even.

"You always scratch your head as to how they can have these well economics that can have double-digit returns on investment, but it never flows through to the total company returns," he said.

Historically, the break-even number is rooted in an industry benchmark used to help executives decide whether to drill a well. Given that funds may already have been invested in land, infrastructure or overhead, it helps companies evaluate what price is needed for a new well to make economic sense.

After oil prices crashed earlier this decade, shale companies often touted the figure to help explain why they continued drilling even when prices had fallen so much. Generally, because of sunk costs, drilling additional wells made sense. But many of the companies curtailed drilling to their choicest acreage, which caused the break-even figures to fall significantly in 2016, and helped create the impression that shale companies could generate overall profits even at lower prices.

"There was a retreat to sweet spots," said Robert Kleinberg, a senior research scholar at Columbia University's Center on Global Energy Policy. "They went to the best areas, with the best crews and used the best equipment because they were under pressure to keep the lights on."

Still, the perception that break-even prices reflect profitability levels for shale drillers has lingered—and now many have to contend with higher logistics costs and other challenges that have made it more expensive for them to operate in the black as many

companies ramp up production at once.

Companies certainly have gotten better at producing at lower prices. In 2015, when crude averaged about \$49 a barrel, the 30 biggest shale producers lost more than \$80 billion.

Yet even as their overall operations have improved, many have struggled to deliver consistent profits across the board.

Noble Energy Chief Executive David Stover said last year that at \$40 oil and \$2 natural gas, the company would break even on more than 70% of its domestic inventory, or thousands of well locations. Still, the company wasn't profitable overall in 2017, losing more than \$1 billion, due in part to a loss on the sale of assets in the Marcellus Shale drilling region in the Eastern U.S.

Noble, which has turned a \$758 million profit with higher prices this year, noted that it would have made money absent the one-time charge related to its Marcellus sale.

Brad McMillan, chief investment officer for brokerage Commonwealth Financial Network, said he treats companies' break-even claims with a grain of salt.

"We look to history," Mr. McMillan said. "What did you do the last time prices were at this level? I think that's the best indicator."

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